

Saving our planet costs less, so let's redirect investment now

Without a drastic reduction in global carbon emissions by 2030, limiting global warming to a safe level won't be possible. As COP26 has intensified the spotlight on the emissions crisis, political pledges to achieve net-zero energy systems are becoming increasingly visionary. While establishing targets is important, the impact of political momentum is minimal if pledges do not outline credible plans to achieve their targets.

Placing renewable-generated power at the center of energy systems is the underlying condition for slashing carbon emissions, but decarbonizing power still has a long way to go. Renewables account for just 29 percent of global electricity generation, with the remainder still relying on carbon-heavy power sources. The rate of installing renewable capacity is also too slow; if renewables continue to be installed at the current pace, the global energy system would reach the needed capacity for fully decarbonized power by 2104.

Evidence to suggest that many political pledges lack substance is broad. From widespread regulatory obstacles that create bottlenecks for the advancement of renewable projects, to a lack of attention paid to the expansion of grid networks, many nations that are announcing ambitious commitments to net-zero appear to be falling short when it comes to the details.

But one of the most telling examples of inadequate political action is the disproportionate amount of global energy investment directed towards fossil fuels today. In 2021 so far, more money has been spent globally on fossil-fuels than on renewables and electricity networks, demonstrating that the majority of energy investment flows are still dedicated to preserving a carbon heavy energy system. Since the Paris Agreement was signed, loyalty to the traditional model has led to an increase in carbon-heavy power-generation. Global coal-fired capacity has grown by 157GW since 2015, with a further 480GW currently in the pipeline.

To realistically reduce global carbon emissions by the amounts required to align with the Paris Agreement, we need a global shift in energy investment patterns. The technologies required to cut emissions already exist and are ready to be deployed, but, among other factors, a lack of investment is starving them of the ability to adopt an exponential growth trajectory. With a redirection of investment to nurture installed capacity, infrastructure, and system flexibility, power sources like wind and solar can garner enough scale to meet the majority of energy demand.

Shift is the operative here, decarbonizing global energy isn't necessarily about spending more money, it's about redirecting investment to lay the foundation for a future energy system that is more sustainable. And this will yield returns in more ways than one. Beyond cutting carbon-emissions in line with what's required to bring global warming down to a safe level, a decarbonized energy system can support a more resilient society.

As we head towards the 2030 deadline, annual investment in renewable installation and green energy infrastructure will need to increase significantly, but with this foundation in place, post-2030 investment needs for new electricity generation will fall by around a third. As annual capital investment to meet net-zero increases, GDP will be boosted, with green energy set to drive a 4 percent growth in global GDP by 2030. And beyond this, costs related to addressing pollution, water consumption will decrease, while energy security and job creation increase significantly.

We are now at that critical juncture where it cost less to save our planet than to spoil it, it's time for political pledges to focus on driving the shift towards a more sustainable future.

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